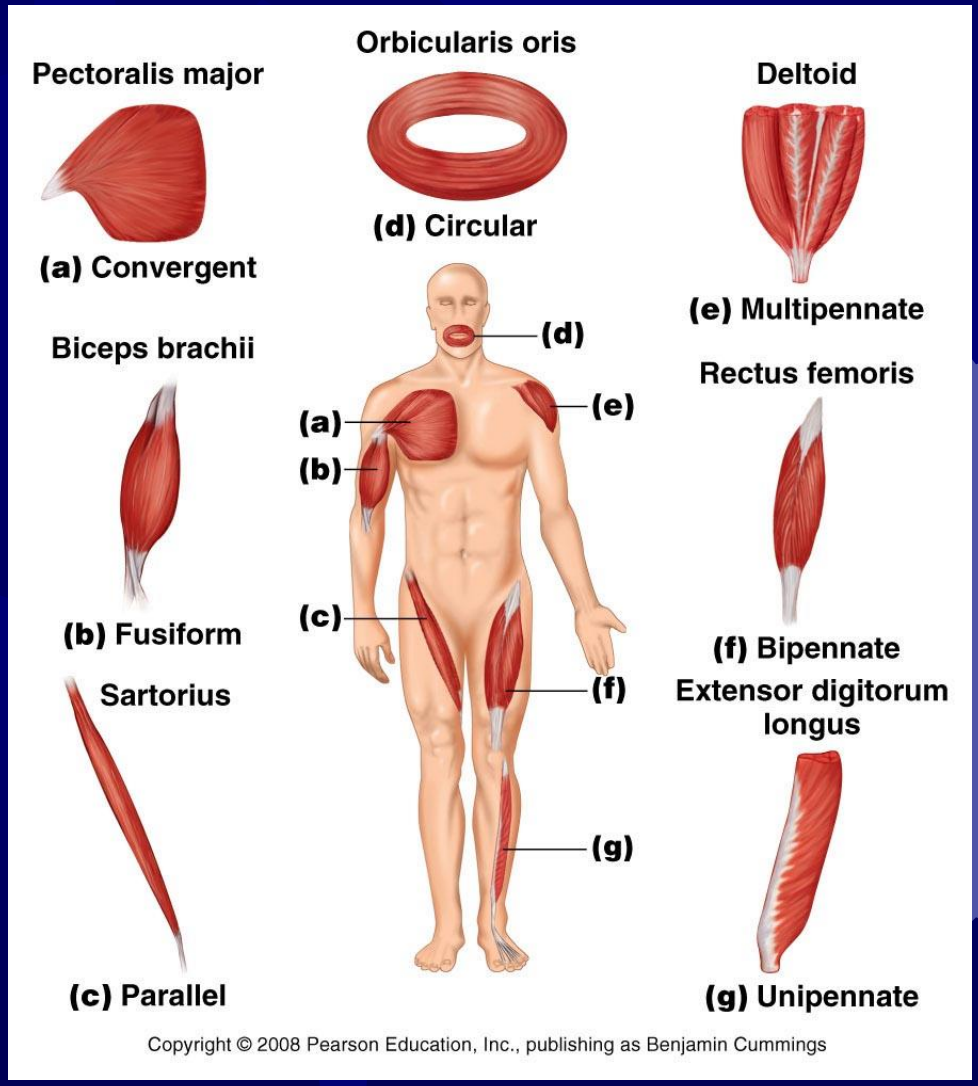
Ch 11, Muscles of the Body
Part 1: The Axial Musculature

- Consists of the
  - Head and Neck
  - Spine
  - Ribs
- Know the Terms:
  - Origin, Insertion, Action
  - Agonist (prime mover) and Antagonist
  - Synergist

Developed by
John Gallagher, MS, DVM

LAS POSITAS COLLEGE

Muscle Arrangements



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Some Nomenclature Aids

- Location, e.g., intercostal
- Shape, e.g. deltoid
- Size, e.g., gluteus maximus
- Direction of fibers, e.g., rectus, oblique
- Location of origin and/or insertion, e.g., sternocleidomastoid
  - Number of origins, e.g., biceps brachii
- Action (flexor, extensor, etc.)

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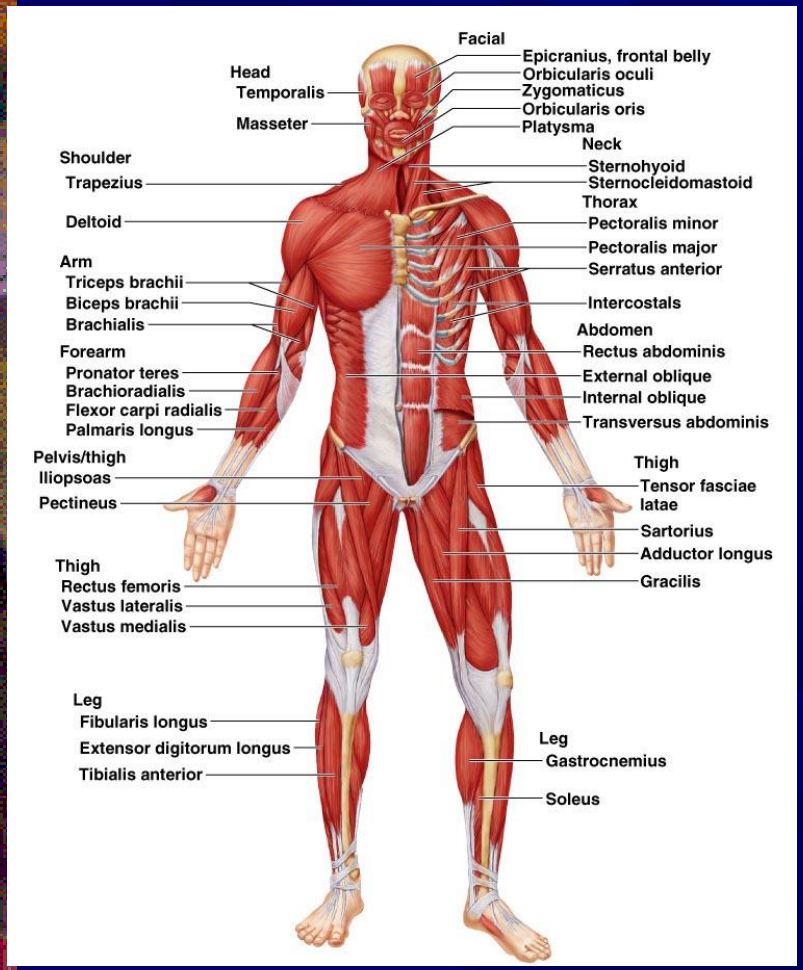
Superficial, big, important

Superficial muscles



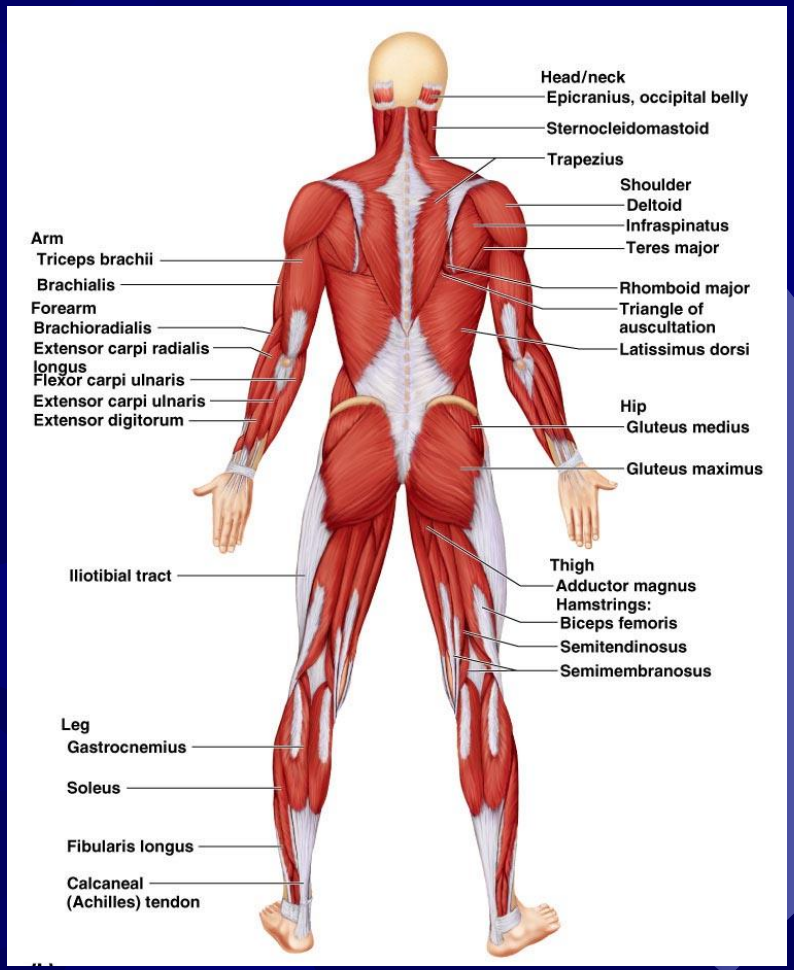
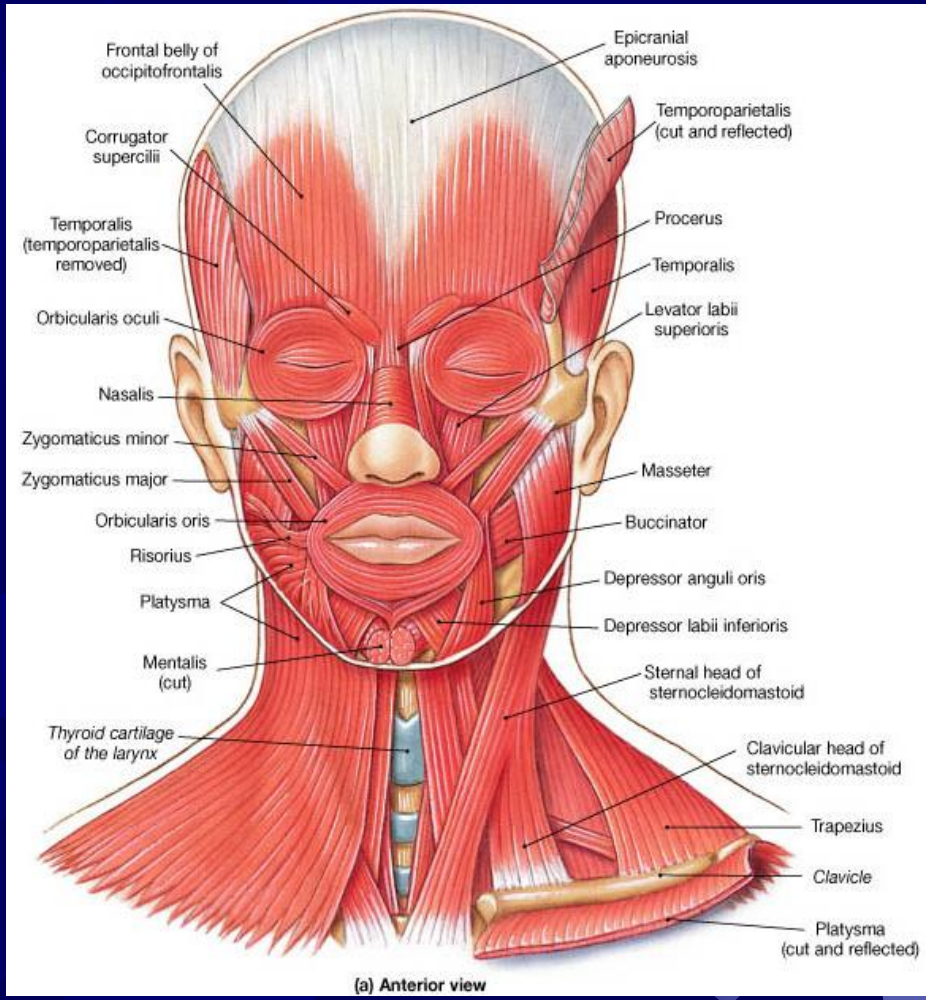


Fig 11-7 a and b

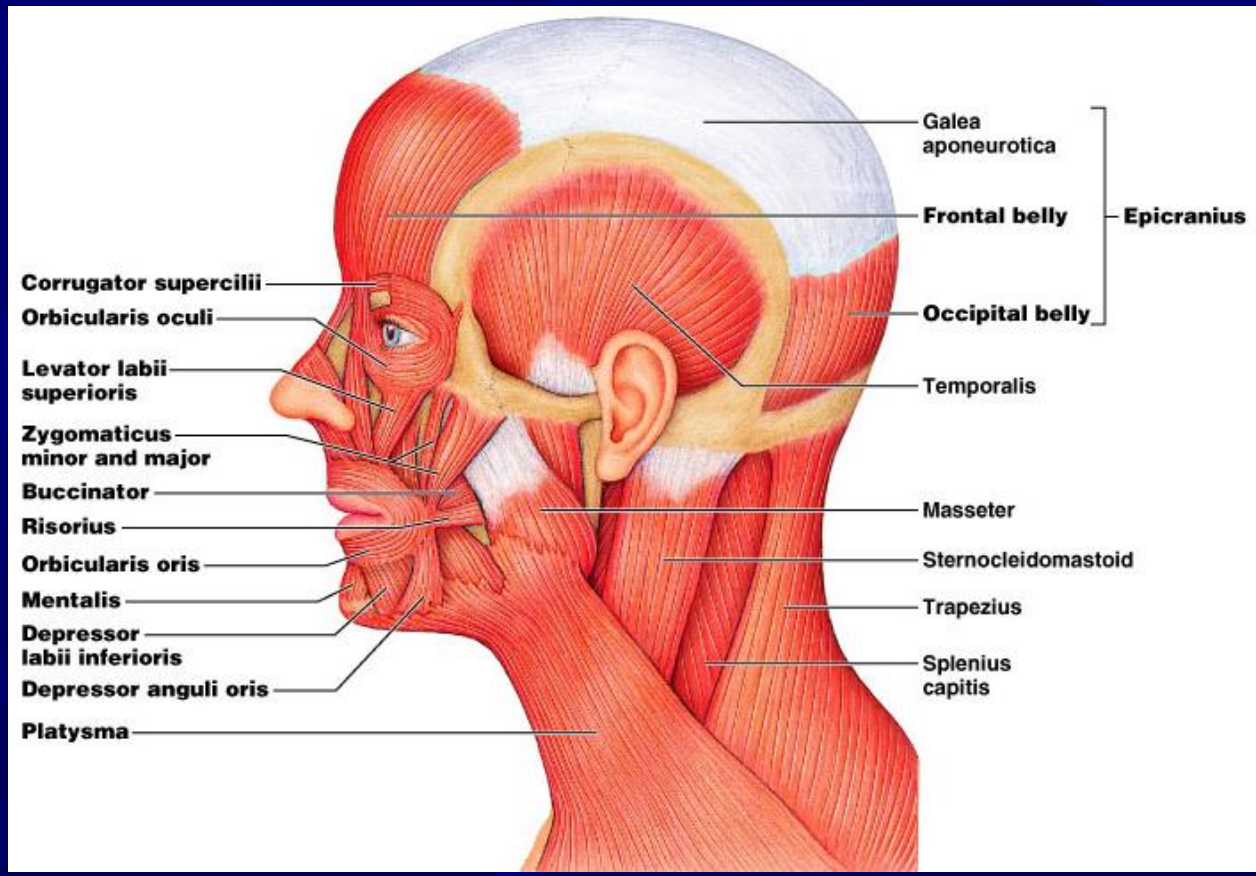
The Head (and face)

orbicularis oculi
orbicularis oris
risorius
platysma



Muscles of Mastication (chewing)

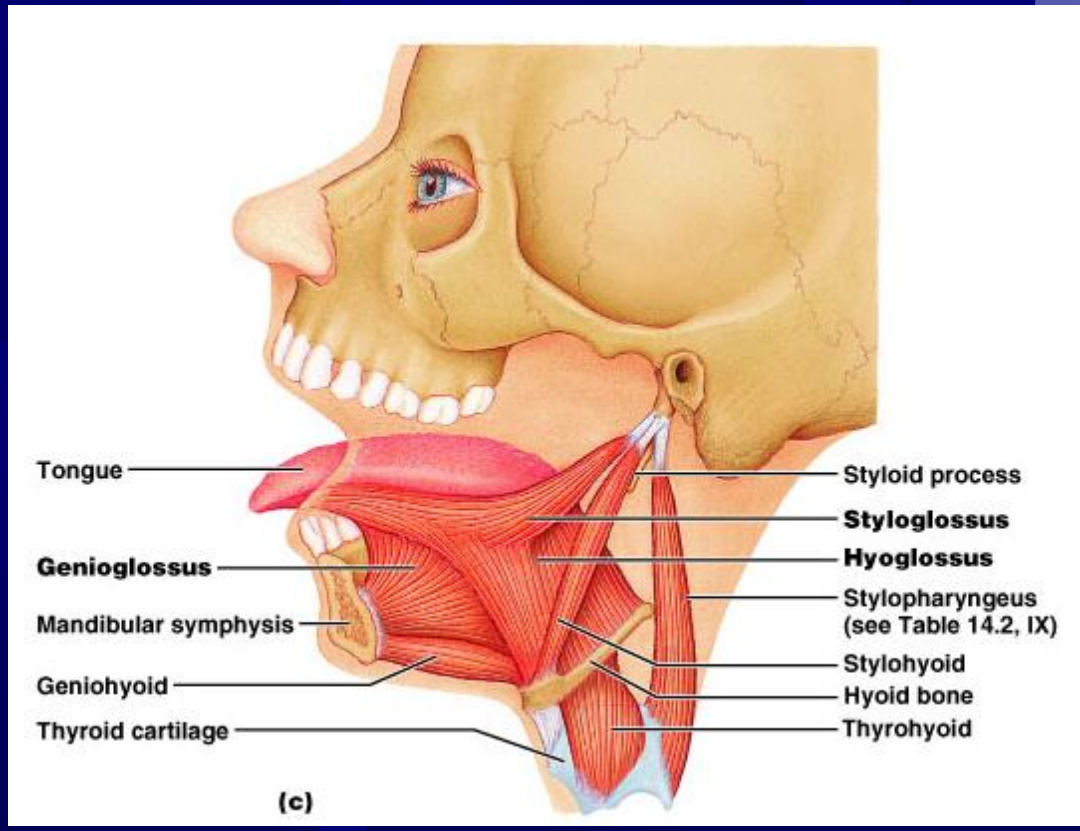
- Masseter
- Temporalis
- Buccinator



Tongue (glosso) and related muscles

- Genioglossus
  - Inferior aspect of tongue
- Styloglossus
- Hyoglossus

Genio- = chin
Glosso = tongue



Eye (Ch 16)

- Rectus muscles:
  - Medial and Lateral
  - Superior and Inferior
- Oblique muscles
  - Superior and Inferior
  - Note the trochlea
- Levator palpebrae superioris

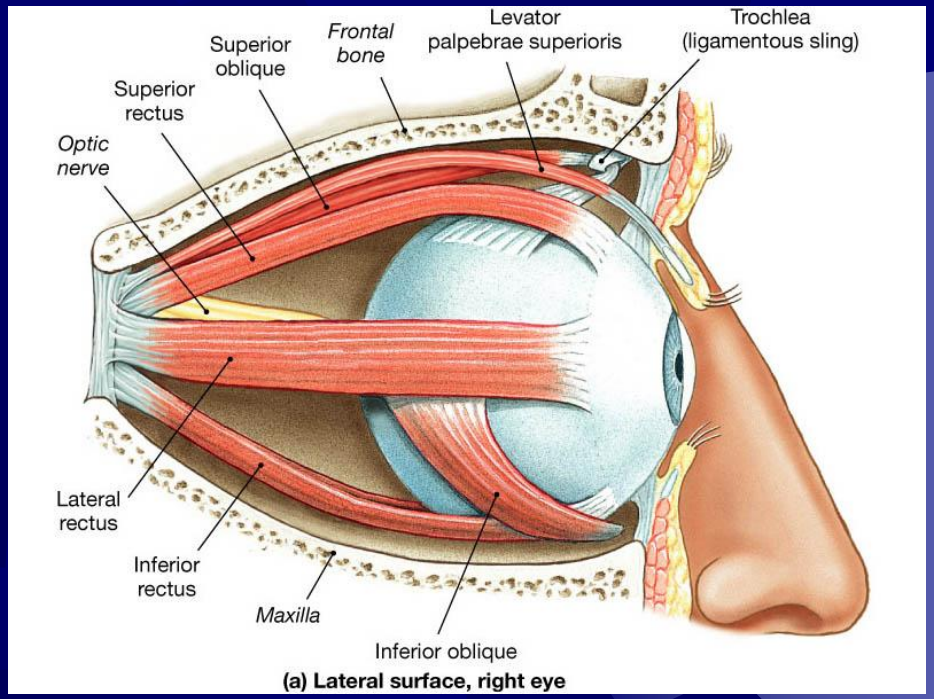
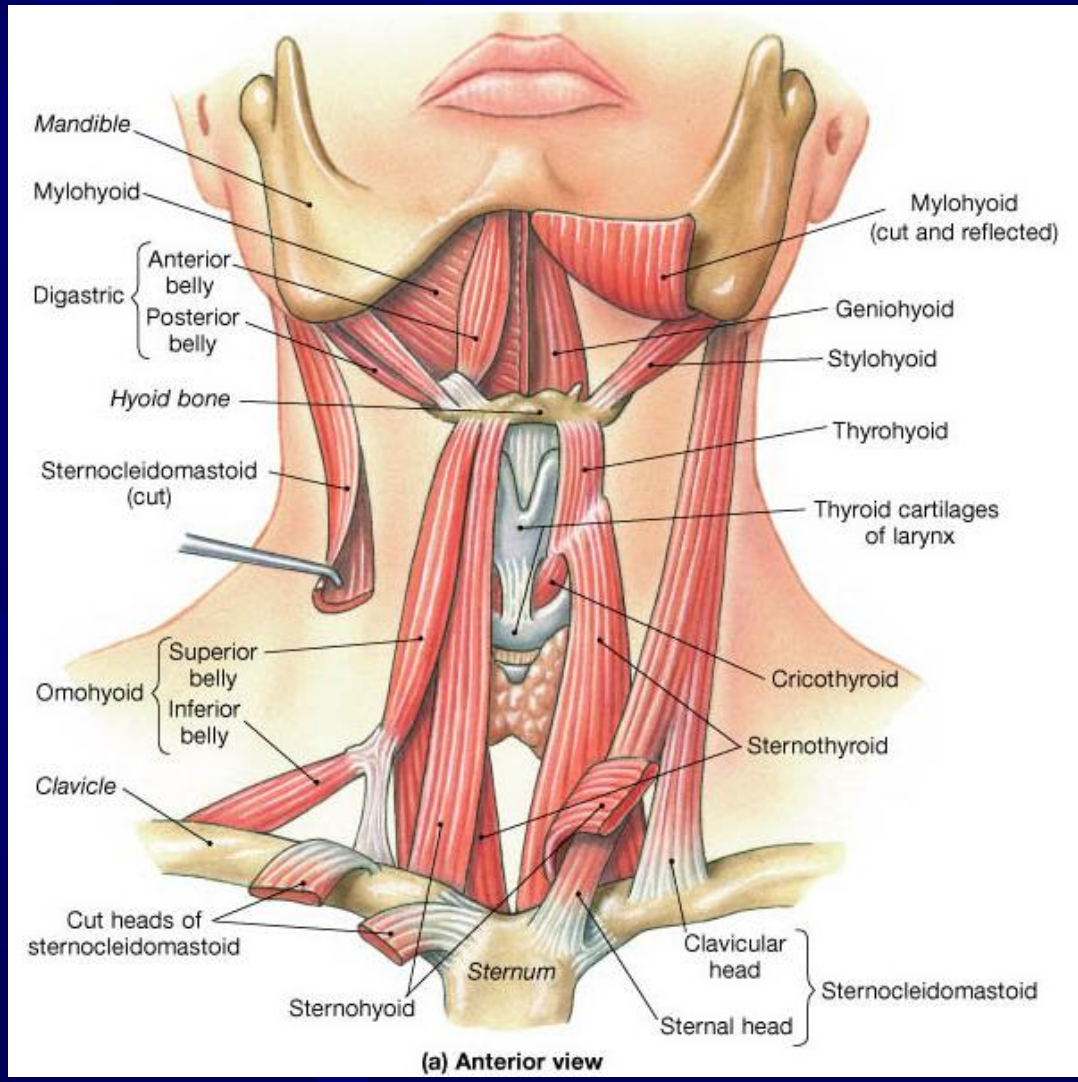


Fig. 16-6

We'll see these again, in Special Senses

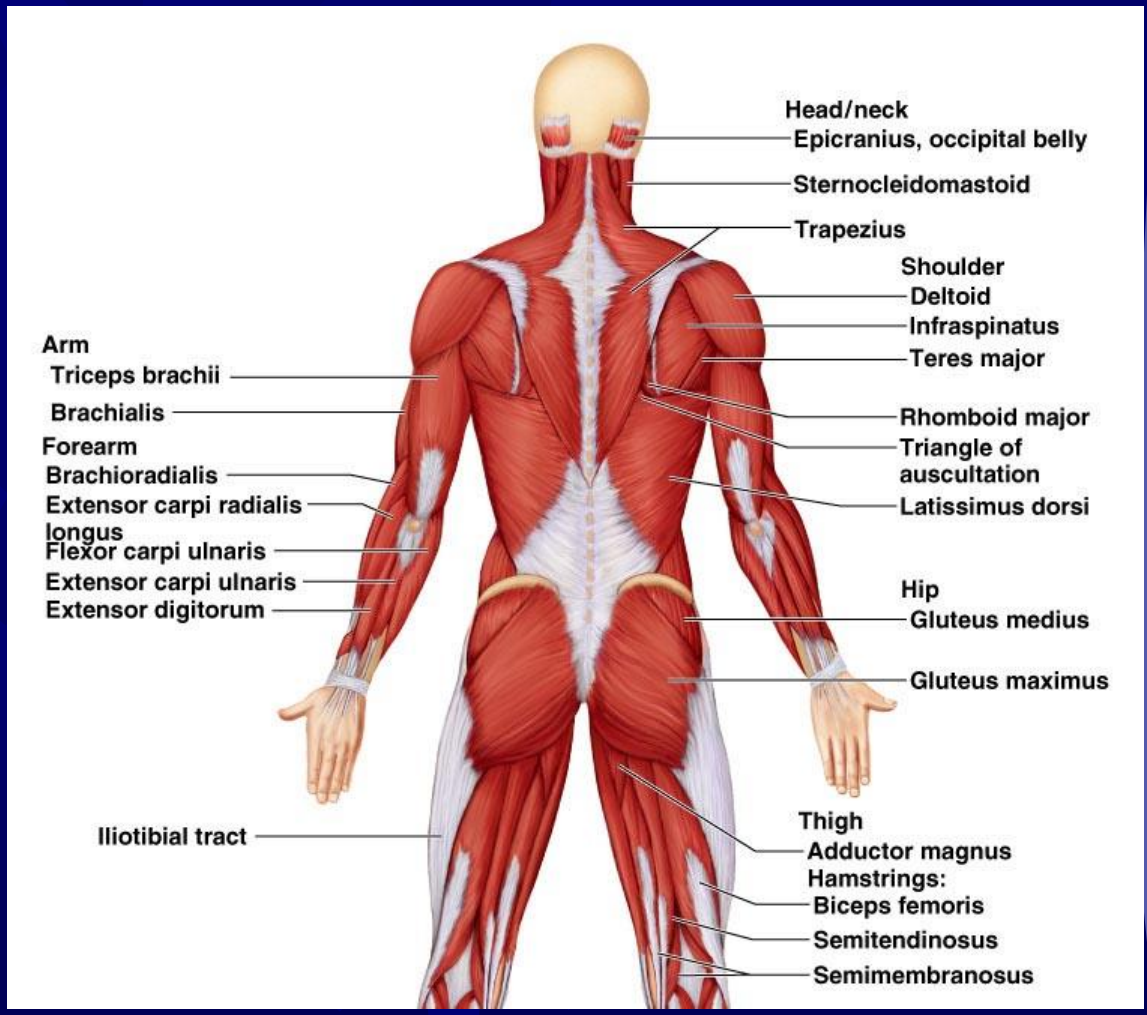
The Neck

- Digastric
- Sternocleidomastoid (two heads, or origins)
- Suprahyoid Group
- Infrahyoid Group

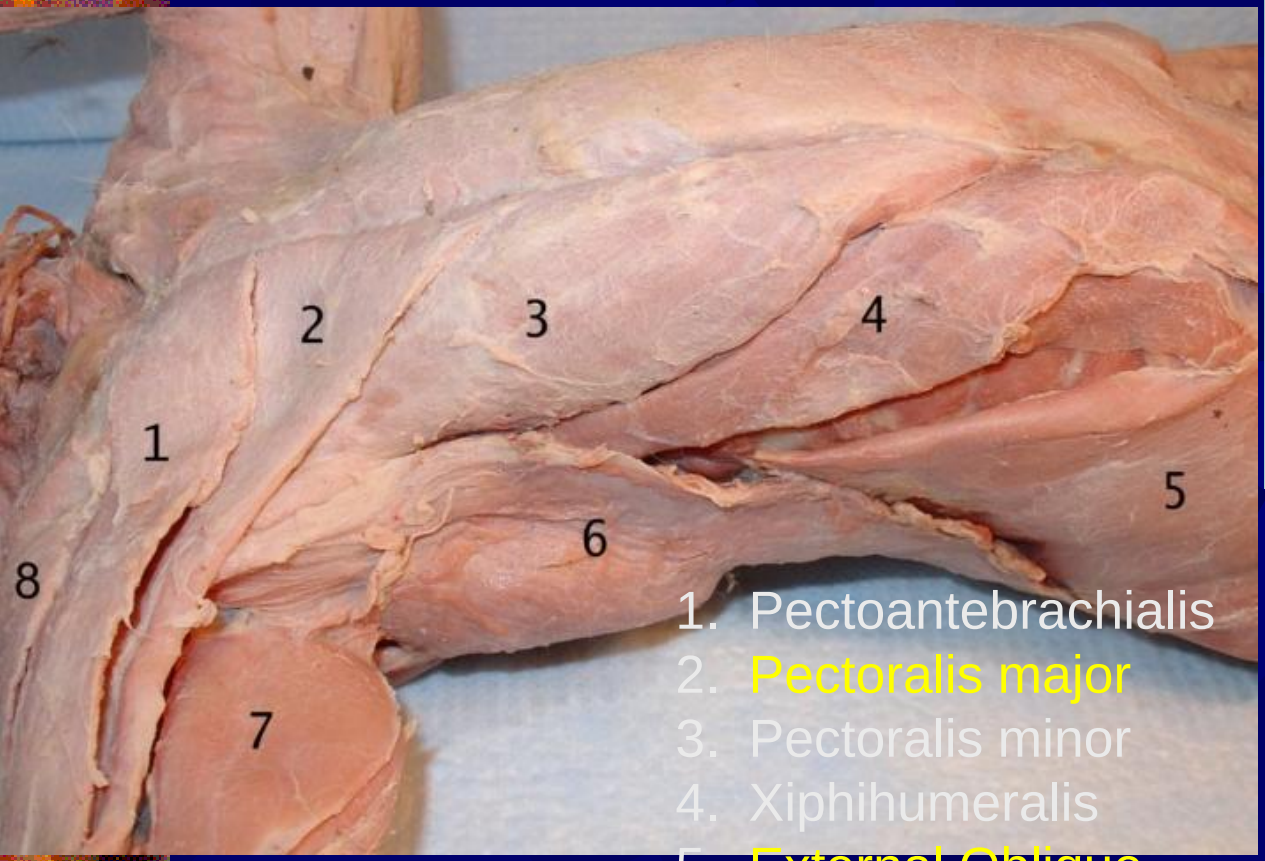


The Spine

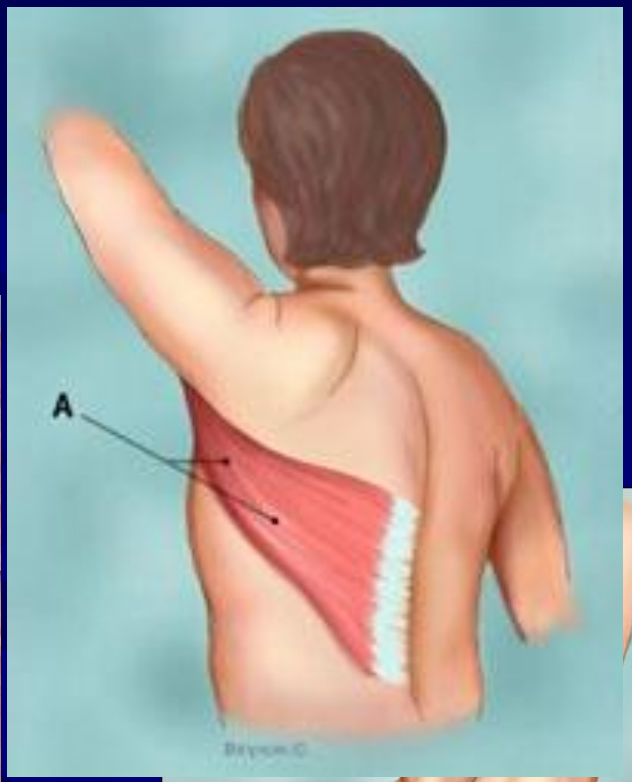
Trapezius
Deltoid
Supraspinatus
Infraspinatus
Latissimus dorsi

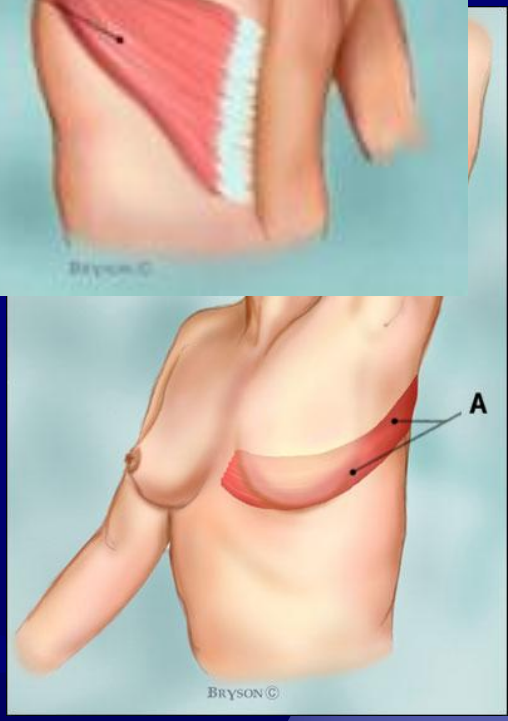


More Spine



1. Pectoantebrachialis
2. Pectoralis major
3. Pectoralis minor
4. Xiphihumeralis
5. External Oblique
6. Latissimus dorsi
7. Epitrochlearis
8. Clavobrachialis

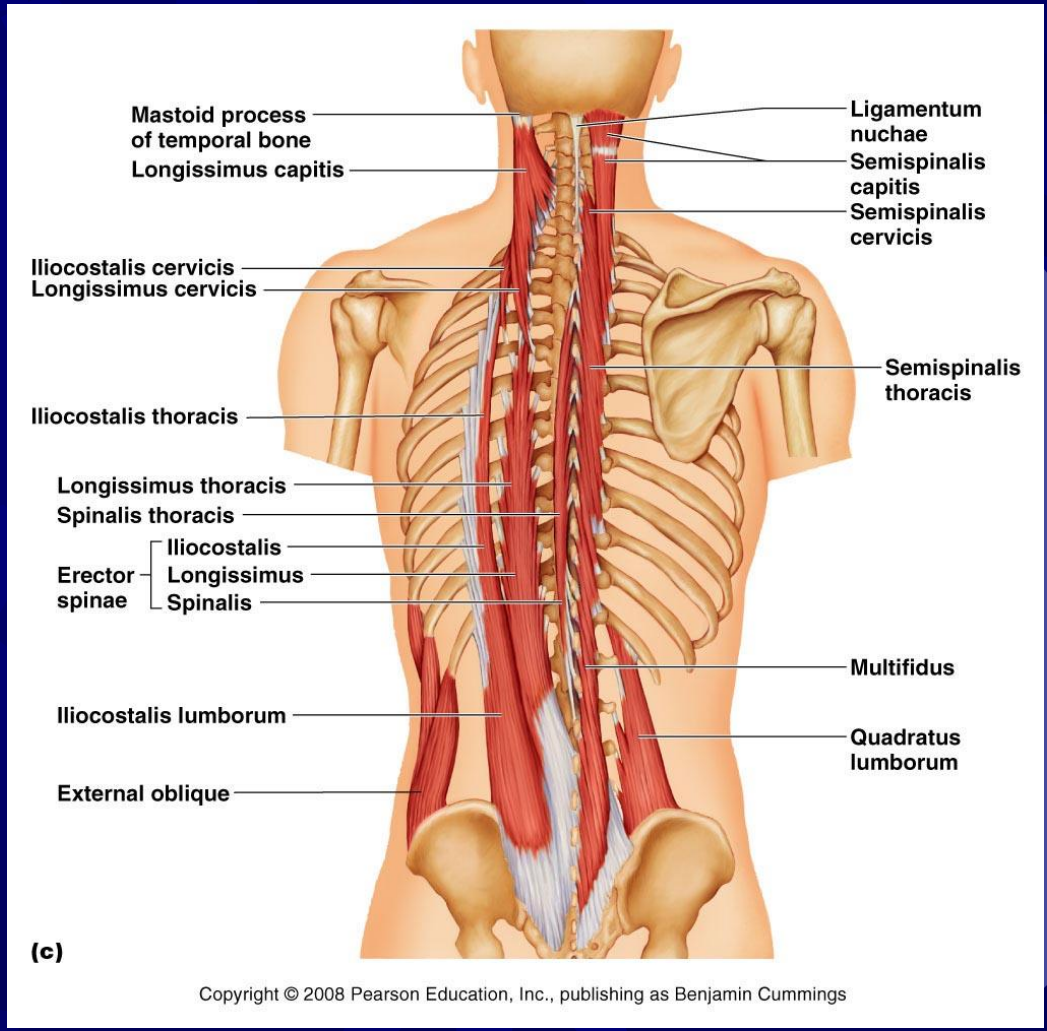




Flap for breast reconstruction

The Neck & Spine: For posture

- erector spinae group:
  - Longissimus
  - Iliocostalis
  - Spinalis



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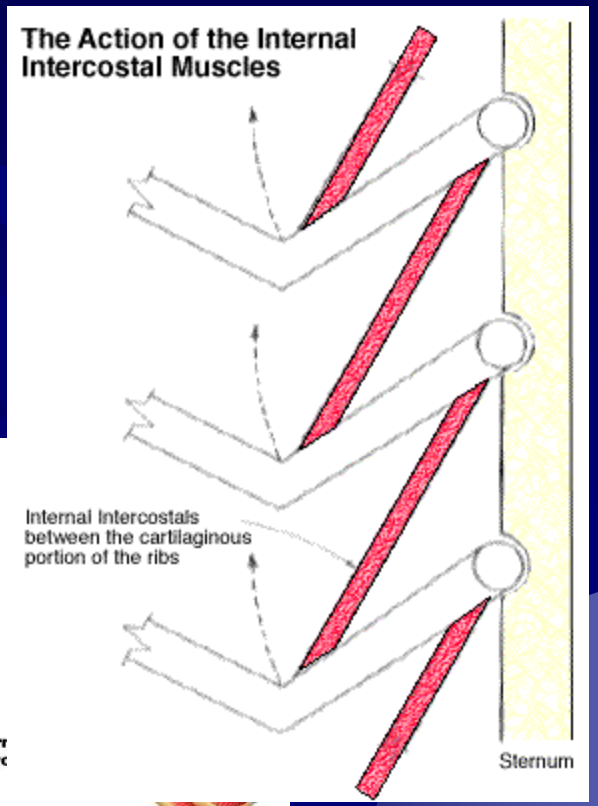
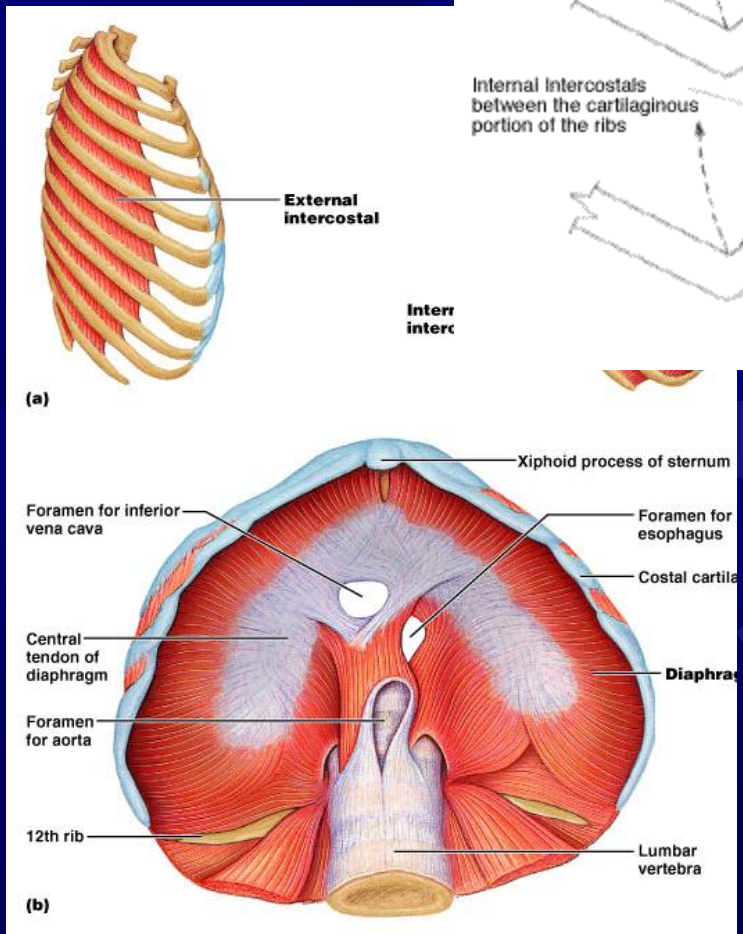
Respiration

- Diaphragm
  - Dome-shaped
  - Contraction causes inspiration
- Intercostals
  - External - for inspiration
  - Internal – for expiration

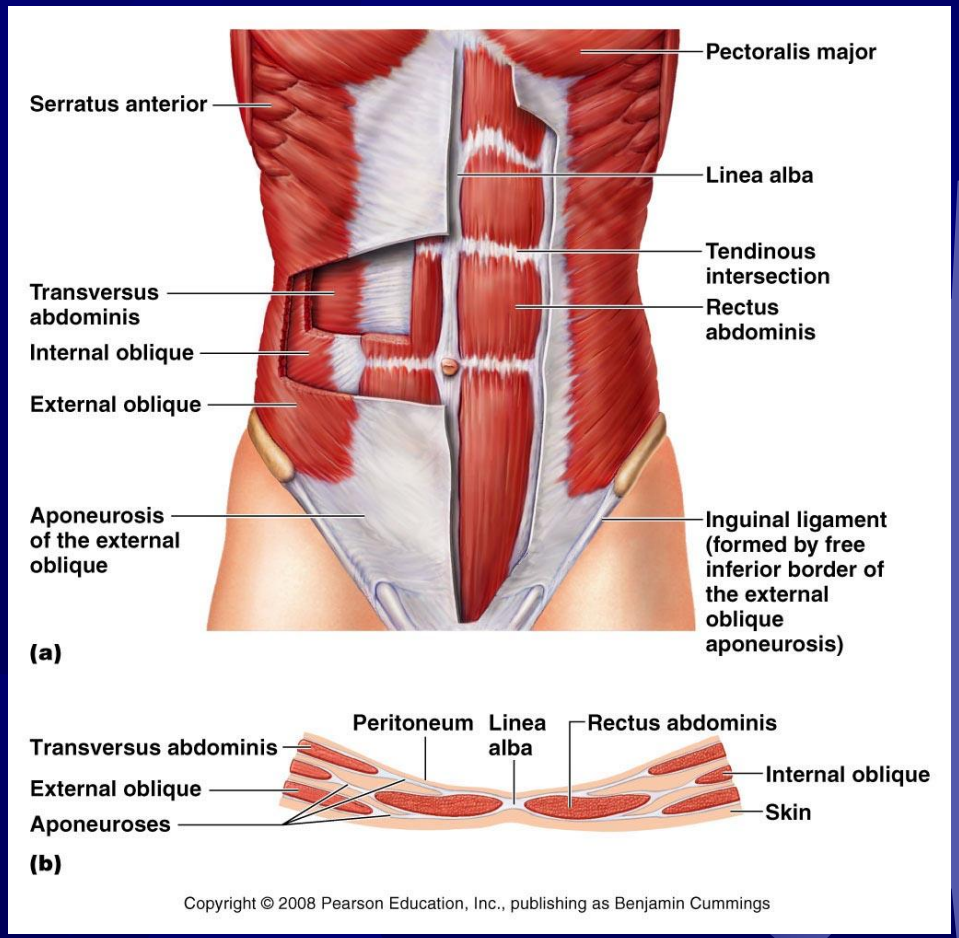

The Action of the Internal Intercostal Muscles
Internal intercostals between the cartilaginous portion of the ribs
Sternum



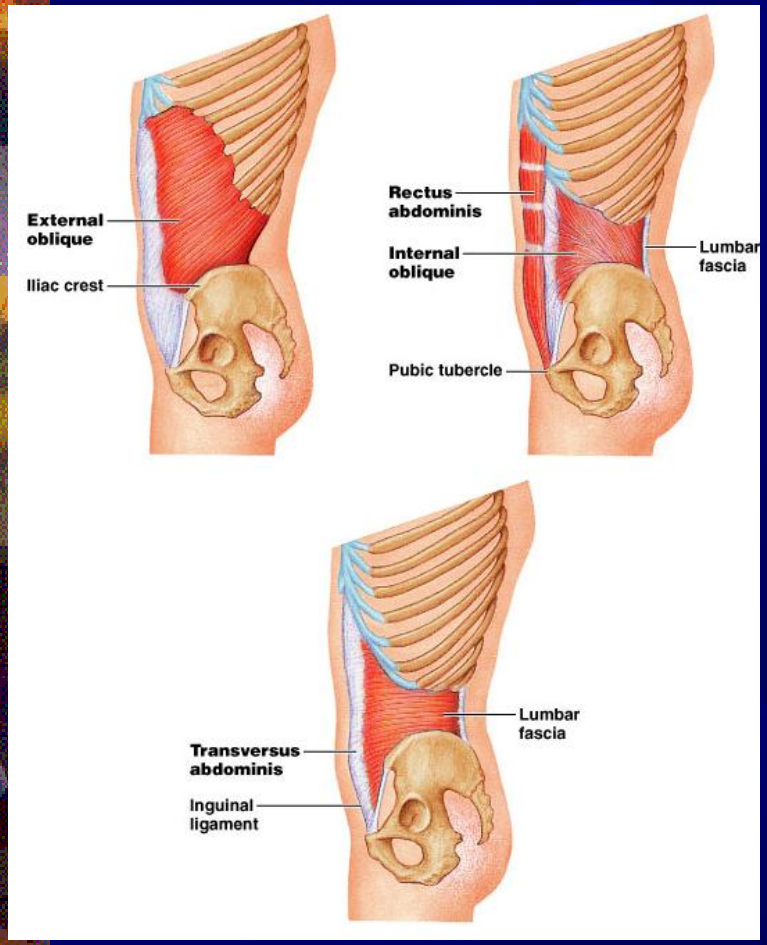
The Abdominal Group

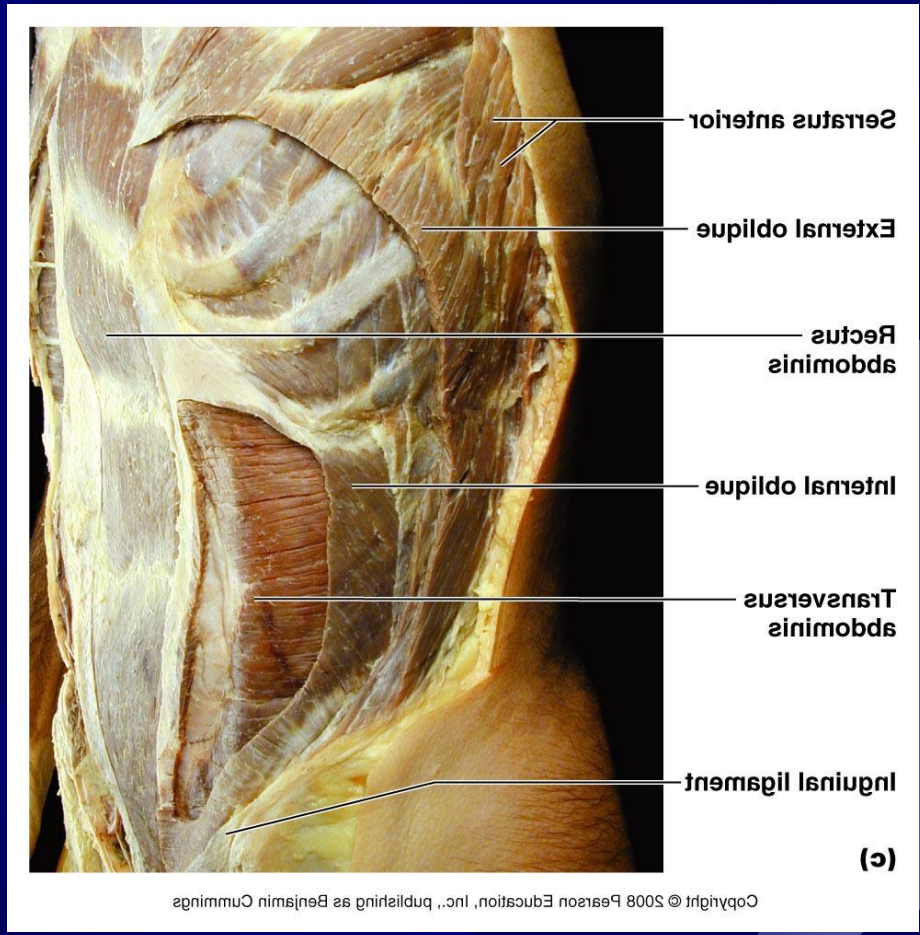
Abdominal wall:

- Rectus abdominis
  - Tendinous intersections (inscriptions, insertions)
    - The “six pack”
- Int. and ext. obliques
- Transversus abdominis
- Linea alba
- Inguinal rings



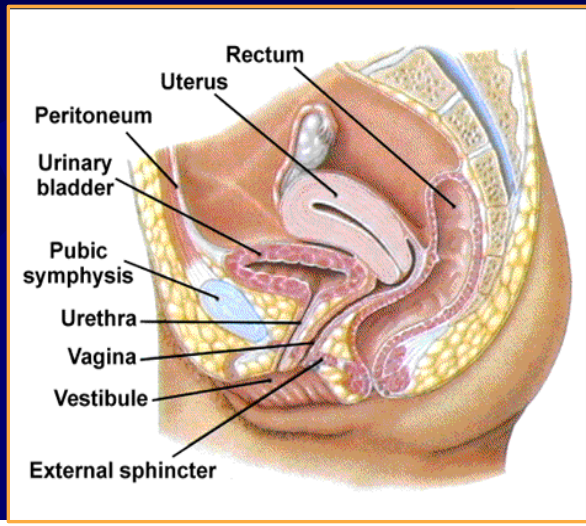
The Abdominal Group





Pelvic Floor

- Pelvic Diaphragm
  - Levator ani
  - Coccygeus
- External Urethral Sphincter
- External Anal Sphincter



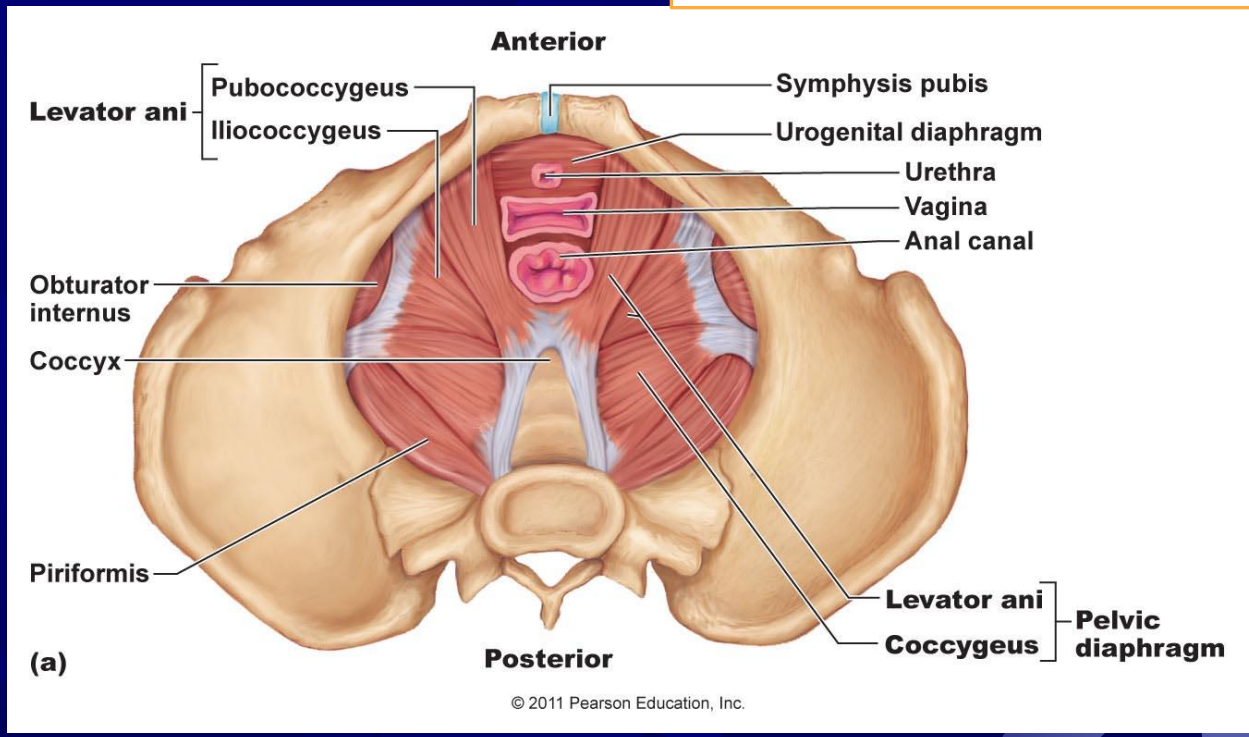
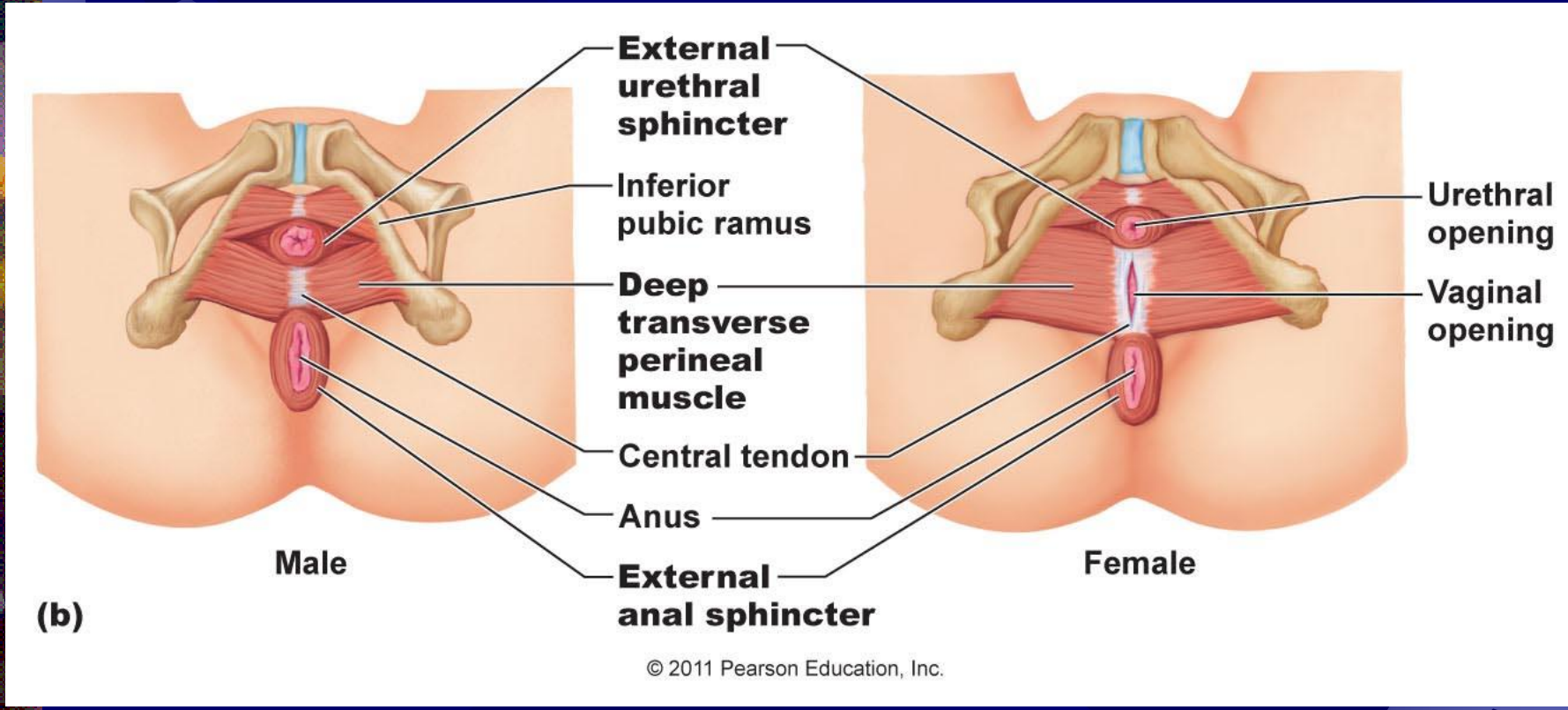


Fig 11-15

Pelvic Floor, deep



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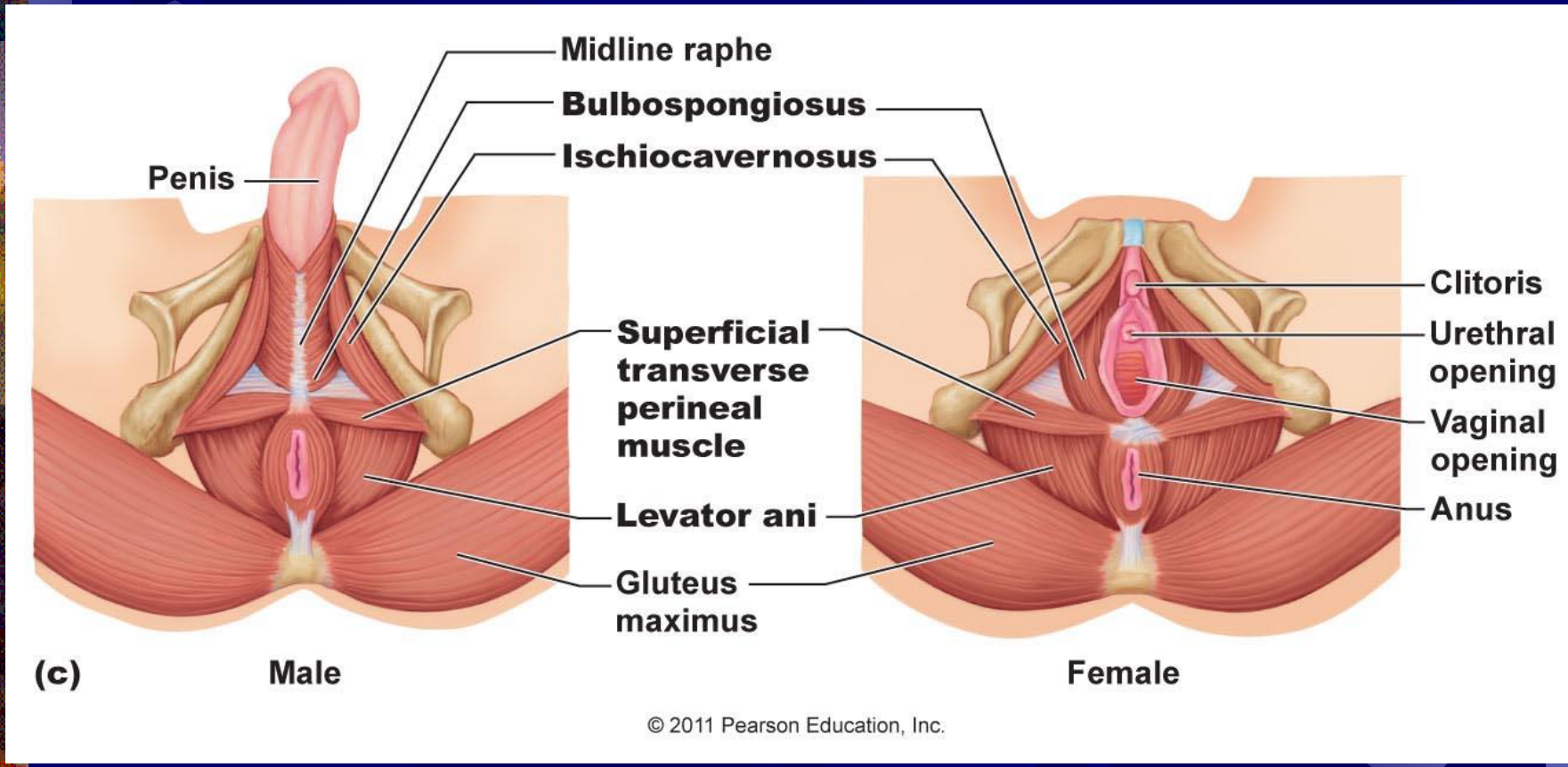
Pelvic Floor, superficial



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